

## Product datasheet for **SC125331**

### Macrophage Scavenger Receptor I (MSR1) (NM\_138715) Human Untagged Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Macrophage Scavenger Receptor I (MSR1) (NM_138715) Human Untagged Clone
Tag:	Tag Free
Symbol:	Macrophage Scavenger Receptor I
Synonyms:	CD204; phSR1; phSR2; SCARA1; SR-A; SR-AI; SR-AII; SR-AIII; SRA
Mammalian Cell Selection:	None
Vector:	<u><a href="#">pCMV6-XL5</a></u>
E. coli Selection:	Ampicillin (100 ug/mL)



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**Fully Sequenced ORF:** >OriGene ORF within SC125331 sequence for NM\_138715 edited (data generated by NextGen Sequencing)  
 ATGGAGCAGTGGGATCACTTTCACAATCAACAGGAGGACACTGATAGCTGCTCCGAATCT  
 GTGAAATTTGATGCTCGCTCAATGACAGCTTTGCTTCTCCGAATCCTAAAAACAGCCCT  
 TCCCTTCAAGAGAAAAGTGAAGTCTTCAAAGCTGCACTGATTGCCCTTACCTCCTCGTG  
 TTTGCAGTTCTCATCCCTCTCATTGGAATAGTGGCAGCTCAACTCCTGAAGTGGGAAACG  
 AAGAATTGCTCAGTTAGTTCAACTAATGCAAATGATATAACTCAAAGTCTCACGGGAAAA  
 GGAAATGACAGCGAAGAGGAAAATGAGATTTCAAGAAGTCTTTATGGAACACATGAGCAAC  
 ATGGAGAAGAGAATCCAGCATATTTTAGACATGGAAGCCAACCTCATGGACACAGAGCAT  
 TTCCAAAATTTACAGCATGACAACCTGATCAAAGATTTAATGACATTCTTCTGCAGCTAAGT  
 ACCTTGTTTTCTCAGTCCAGGGACATGGGAATGCAATAGATGAAATCTCCAAGTCTTA  
 ATAAGTTTGAATACCACATTGCTTGATTGCGAGCTCAACATAGAAAATCTGAATGGCAA  
 ATCCAAGAGAATACCTTCAAACAACAAGAGGAAAATCAGTAAATTAGAGGAGCGTGTTCAC  
 AATGTATCAGCAGAAATTATGGCTATGAAAGAAGAACAAGTGCATTTGGAACAGGAAATA  
 AAAGGAGAAGTAAAAGTACTGAATAACATCACTAATGATCTCAGACTGAAAGATTGGGAA  
 CATTCTCAGACCTTGAGAAATATCACTTTAATCAAGGTCTCCTGGACCCCGGGTGA  
 AAAGGAGATCGAGGTCCCACTGGAGAAAAGTGGTCCACGAGGATTTCCAGGTCCAATAGGT  
 CCTCCGGGTCTTAAAGGTGATCGGGGAGCAATTGGCTTCTGGAAGTCCGAGGACTCCCA  
 GGATATGCCGGAAGGCCAGGAAATCTGGACCAAAAGGCCAGAAAAGGGGAAAAGGGGAGT  
 GGAAACACATTAACCTCAATTTACGAAAGTTCGACTGGTGGTGGGAGCGGCCCTCACGAG  
 GGGAGAGTGGAGATACTCCACAGCGGCCAGTGGGTACAATTTGTGACGATCGCTGGGAA  
 GTGCGCGTTGGACAGGTCTGTAGGAGCTTGGGATACCCAGGTGTTCAAGCCGTGCAC  
 AAGGCAGTCACTTTGGACAAGTACTGGTCCAATATGGCTGAATGAAGTGTGTTTTGTTTT  
 GGGAGAGAATCATCTATTGAAGAATGTAATAATCGGCAATGGGGGACAAGAGCCTGTTCA  
 CATTCTGAAGATGCTGGAGTCACTTGCACCTTTATAA

Clone variation with respect to NM\_138715.2  
 1086 g=>a

**5' Read Nucleotide Sequence:** >OriGene 5' read for NM\_138715 unedited  
 GGGGGTTCAAATTTTGTATACGACTCACTATAGGCGGCCGCGATTTCGCACGAGGTCATTT  
 CCTTTCTCATGTCCAGAGCTGAAATACTATGAGATAAAGATTTTAGGTTTCAATTGTAA  
 AGAGAGAGAAGTGGATAAATCAGTGTGCTTTCTTTAGGACGAAAAGAAGTATGGAGCAGT  
 GGGATCACTTTCACAATCAACAGGAGGACACTGATAGCTGCTCCGAATCTGTGAAATTTG  
 ATGCTCGTCAATGACAGCTTTGCTTCTCCGAATCCTAAAAACAGCCCTTCCCTTCAAG  
 AGAAACTGAAGTCTTCAAAGCTGCACTGATTGCCCTTACCTCCTCGTGTGTTGCAGTTC  
 TCATCCCTCTCATTGGAATAGTGGCAGCTCAACTCCTGAAGTGGGAAACGAAGAATTGCT  
 CAGTTAGTTCAACTAATGCAAATGATATAACTCAAAGTCTCACGGGAAAAGGAAAATGACA  
 GCGAAGAGGAAAATGAGATTTCAAGAAGTCTTTATGGAACACATGAGCAACATGGAGAAGA  
 GAATCCAGCATATTTAGACATGGAAGCCAACCTCATGGACACAGAGCATTTCAAAATTT  
 TCAGCATGACAACCTGATCAAAGATTTAATGACATTCTTCTGCAGCTAAGTACCTTGTTTT  
 CCTCAGTCCAGGACATGGGAATGCAATAGATGAAATCTCCAAGTCTTAATAAGTTTGA  
 ATACCACATTGCTTGATTGCGAGCTCAACATAGAAAATCTGAATGGCAAATCCAAGAGAT  
 ACCTTCAAACAACAAGAGGAAAATCAGTAAATTAGAGGAGCGTGTTCACATGTATCAGCA  
 GAAATATGGCTATGAAAGAGGACAAGTGCATTTGGGACAGGAAAATAAGGAGAAGTGAAA  
 GTTCTGATACATCACTTATGATC

<b>3' Read Nucleotide Sequence:</b>	>OriGene 3' read for NM_138715 unedited GTTTTTTTTTTAAATGGGGAACCAAAGGCAATTNCAACATTNCCAAAGTAAATTAAGTCC TCAATTTGTATTGGTGCTATTAGGTTCTTTTCTTGACTGGACTGAACTTAGTAGATTCTC TCAAATACAAAAAGGATTTTATAGATTACTTATTAAGATATATCTATGCATAAGTGGTAA ATCAGCATGCATATACCATACAGCAATATAGTATTAACAACCCATAGGCACTGATCTCAG ACATCCCAAGTGCCTATGGGTTGTCAATAGTACTATTAACAGTGCATAGTACTAGTACT AGTAATAGTACTAGTAATAGCAATAGTACCAGTACTAGCAATAGTACTATTATTATTTTA AAGGTAATTTTTATTTTAAAAATAAAAAATAGTAATAGCAATAGTACTATTATTAGTGTTAA TAATACTAATAGTTAATACTAACAGTTAACACTAATAGTTAATACTATTGACAACCCATA GGCCTGATTTTCAGACATCCCATGCATACCACTTACGCATAAGTAGTAAATCAGCATACA TATACCATACAGCAATACAGTATTAACAACCCAGAGGCACTGATCTCAGACATCCCAAAC AGGCTGACAATGCAAAATGATTCTTTTCAGAAACCATTGTATTTACCTTTTGAAGAAAATAC CTAGATAGTGGAACTGAACACAAAGAATTATTAAGTACTGAAATTACAGCCAGGTTTGG AGACAGAAAGTGTACATTCAGCACTCATTCTCTTACCACAAAATATGCTGCCAGAGAAAA TAGCATGTTAACAAAGTACACGATGTTTCATGATAAAAGCATTTTCAGTAGCTGCTTACAGCA TCCCAATTCACGAACGCTTGCCCTTTAGTTGGACGCTGGAGCCCACTGTATATGCGGG GAGATTAGATAGAAAAAGCTCAGCTTTGTTTCATTGCCCTTAAGAGGACGGCCCGATTCT TTTAGGCCGTTAACATACTTCTGGGAT
<b>Restriction Sites:</b>	NotI-NotI
<b>ACCN:</b>	NM_138715
<b>Insert Size:</b>	3780 bp
<b>OTI Disclaimer:</b>	Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at <a href="mailto:custsupport@origene.com">custsupport@origene.com</a> or by calling 301.340.3188 option 3 for pricing and delivery.
	The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially in agreement with the reference, but a complete review of all prevailing variants is recommended prior to use. <a href="#">More info</a>
<b>Components:</b>	The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).
<b>Reconstitution Method:</b>	<ol style="list-style-type: none"> <li>1. Centrifuge at 5,000xg for 5min.</li> <li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li> <li>3. Close the tube and incubate for 10 minutes at room temperature.</li> <li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li> <li>5. Store the suspended plasmid at -20°C. The DNA is stable for at least one year from date of shipping when stored at -20°C.</li> </ol>
<b>RefSeq:</b>	<a href="#">NM_138715.1</a> , <a href="#">NP_619729.1</a>

RefSeq Size:	3682 bp
RefSeq ORF:	1356 bp
Locus ID:	4481
UniProt ID:	<a href="#">P21757</a>
Cytogenetics:	8p22
Domains:	SR, Macscav_rec, Collagen
Protein Families:	Druggable Genome, Transmembrane
Gene Summary:	<p>This gene encodes the class A macrophage scavenger receptors, which include three different types (1, 2, 3) generated by alternative splicing of this gene. These receptors or isoforms are macrophage-specific trimeric integral membrane glycoproteins and have been implicated in many macrophage-associated physiological and pathological processes including atherosclerosis, Alzheimer's disease, and host defense. The isoforms type 1 and type 2 are functional receptors and are able to mediate the endocytosis of modified low density lipoproteins (LDLs). The isoform type 3 does not internalize modified LDL (acetyl-LDL) despite having the domain shown to mediate this function in the types 1 and 2 isoforms. It has an altered intracellular processing and is trapped within the endoplasmic reticulum, making it unable to perform endocytosis. The isoform type 3 can inhibit the function of isoforms type 1 and type 2 when co-expressed, indicating a dominant negative effect and suggesting a mechanism for regulation of scavenger receptor activity in macrophages. [provided by RefSeq, Jul 2008]</p> <p>Transcript Variant: This variant (SR-AI), also known as phSR1, encodes the longest isoform.</p>